Section 1. Registration Information

Source Identification

Facility Name:	APS West Phoenix Power Plant
Parent Company #1 Name:	Pinnacle West Capital Corporation
Parent Company #2 Name:	

Submission and Acceptance

Submission Type:	Re-submission
Subsequent RMP Submission Reason:	5-year update (40 CFR 68.190(b)(1))
Description:	
Receipt Date:	17-Jun-2009
Postmark Date:	17-Jun-2009
Next Due Date:	17-Jun-2014
Completeness Check Date:	17-Jun-2009
Complete RMP:	Yes
De-Registration / Closed Reason:	
De-Registration / Closed Reason Other Text:	
De-Registered / Closed Date:	
De-Registered / Closed Effective Date:	
Certification Received:	Yes

Facility Identification

EPA Facility Identifier:	1000 0017 6739
Other EPA Systems Facility ID:	

Dun and Bradstreet Numbers (DUNS)

Facility DUNS:	6901995
Parent Company #1 DUNS:	131155400
Parent Company #2 DUNS:	

Facility Location Address

Street 1:	4606 W. Hadley St.
Street 2:	
City:	Phoenix
State:	ARIZONA
ZIP:	85043
ZIP4:	
County:	MARICOPA

Facility Latitude and Longitude

Latitude (decimal):	33.449667
Longitude (decimal):	-112.164583
Lat/Long Method:	GPS - Unspecified
Lat/Long Description:	Air Release Stack
Horizontal Accuracy Measure:	4.8
Horizontal Reference Datum Name:	World Geodetic System of 1984
Source Map Scale Number:	

Owner or Operator

Operator Name:	Arizona Public Service Company
Operator Phone:	(602) 250-1380

Mailing Address

Operator Street 1:	P.O. Box 53933, Mail Station 4120
Operator Street 2:	
Operator City:	Phoenix
Operator State:	ARIZONA
Operator ZIP:	85072
Operator ZIP4:	3933
Operator Foreign State or Province:	
Operator Foreign ZIP:	
Operator Foreign Country:	

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person:	Scott A. Takinen
RMP Title of Person or Position:	Plant Manager
RMP E-mail Address:	scott.takinen@aps.com

Emergency Contact

Emergency Contact Name:	Craig Chavet
Emergency Contact Title:	Sr. Environmental Scientist
Emergency Contact Phone:	(602) 250-1377
Emergency Contact 24-Hour Phone:	(602) 250-1390
Emergency Contact Ext. or PIN:	
Emergency Contact E-mail Address:	cchavet@apsc.com

Other Points of Contact

Facility or Parent Company E-mail Address:	
Facility Public Contact Phone:	
Facility or Parent Company WWW Homepage Address:	

Local Emergency Planning Committee

LEPC:	Maricopa County LEPC

Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site:	60
FTE Claimed as CBI:	

Covered By

OSHA PSM :	
EPCRA 302 :	Yes
CAA Title V:	Yes
Air Operating Permit ID:	V95006

OSHA Ranking

OSHA Star or Merit Ranking:

Last Safety Inspection

Last Safety Inspection (By an External Agency) Date:	01-Feb-2006
Last Safety Inspection Performed By an External Agency:	Fire Department

Predictive Filing

Did this RMP involve predictive filing?:

Preparer Information

Preparer Name:	RTP Environmental Associates Inc.
Preparer Phone:	(303) 444-6046
Preparer Street 1:	2031 Broadway - Suite 2
Preparer Street 2:	
Preparer City:	Boulder
Preparer State:	COLORADO
Preparer ZIP:	80302
Preparer ZIP4:	
Preparer Foreign State:	
Preparer Foreign Country:	
Preparer Foreign ZIP:	

Confidential Business Information (CBI)

CBI Claimed:
Substantiation Provided:
Unsanitized RMP Provided:

Reportable Accidents

Reportable Accidents: See Section 6. Accident History below to determine if there were any accidents reported for this RMP.

Process Chemicals

Process ID:	1000007283
Description:	Aqueous Ammonia Sys CC3
Process Chemical ID:	1000008218
Program Level:	Program Level 1 process
Chemical Name:	Ammonia (conc 20% or greater)
CAS Number:	7664-41-7
Quantity (lbs):	66000
CBI Claimed:	
Flammable/Toxic:	Toxic

Process ID:	1000007284
Description:	Aqueous Ammonia Sys CC5
Process Chemical ID:	1000008219
Program Level:	Program Level 1 process
Chemical Name:	Ammonia (conc 20% or greater)
CAS Number:	7664-41-7
Quantity (lbs):	66000
CBI Claimed:	
Flammable/Toxic:	Toxic

Process NAICS

Process ID:	1000007283
Process NAICS ID:	1000007423
Program Level:	Program Level 1 process
NAICS Code:	221112
NAICS Description:	Fossil Fuel Electric Power Generation

Process ID:	1000007284
Process NAICS ID:	1000007424
Program Level:	Program Level 1 process
NAICS Code:	221112
NAICS Description:	Fossil Fuel Electric Power Generation

Section 2. Toxics: Worst Case

Toxic Worst ID: 1000006076

Percent Weight:	29.4
Physical State:	Liquid
Model Used:	EPA's OCA Guidance Reference Tables or Equations
Release Duration (mins):	10
Wind Speed (m/sec):	1.5
Atmospheric Stability Class:	F
Topography:	Urban

Passive Mitigation Considered

Dikes:	Yes
Enclosures:	
Berms:	
Drains:	
Sumps:	
Other Type:	

Toxic Worst ID: 1000006077

Percent Weight:	29.4
Physical State:	Liquid
Model Used:	EPA's OCA Guidance Reference Tables or Equations
Release Duration (mins):	10
Wind Speed (m/sec):	1.5
Atmospheric Stability Class:	F
Topography:	Urban

Passive Mitigation Considered

Dikes:	Yes
Enclosures:	
Berms:	
Drains:	
Sumps:	
Other Type:	

Section 3. Toxics: Alternative Release

No records found.

Section 4. Flammables: Worst Case

No records found.

Section 5. Flammables: Alternative Release

No records found.

Section 6. Accident History

No records found.

Section 7. Program Level 3

Section 8. Program Level 2

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):	Yes
Facility Plan (Does facility have its own written emergency response plan?):	Yes
Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):	Yes
Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):	Yes
Healthcare (Does facility's ER plan include information on emergency health care?):	Yes

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan):	20-Feb-2007

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees):	18-Nov-2008

Local Agency

Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated):	Maricopa Co Emergency Planning Comm
Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):	(602) 273-1411

Subject to

OSHA Regulations at 29 CFR 1910.38:	Yes
OSHA Regulations at 29 CFR 1910.120:	
Clean Water Regulations at 40 CFR 112:	Yes
RCRA Regulations at CFR 264, 265, and 279.52:	
OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254:	
State EPCRA Rules or Laws:	
Other (Specify):	

Executive Summary

The following outlines the key components of the Risk Management Plan for the aqueous ammonia storage and handling system at Arizona Public Service Company's West Phoenix Power Plant. The organization of this executive summary follows the elements listed in the U.S. EPA's RMP*Submit Users Manual, with a brief introduction.

Introduction

Arizona Public Services (APS) owns and operates the West Phoenix Power Plant, an electric power generation facility located in Maricopa County, Arizona. The units at the West Phoenix Power Plant include two simple-cycle turbines, three 85 MW combined-cycle units (CC1-3), a 120 MW natural gas-fired combined cycle unit (CC4), a 530 MW natural gas-fired combined cycle unit (CC5), a natural gas-fired auxiliary boiler, and three steam generating units. As part of the construction of CC5, and the retrofitting of one existing combined cycle unit (CC3), selective catalytic reduction (SCR) control systems were installed to reduce emissions of nitrogen oxides (NOx). The SCR system utilizes aqueous ammonia to reduce NOx emissions. Ammonia with concentrations of 20% or higher is listed as a regulated substance under Section 112(r) of the Clean Air Act Amendments of 1990.

As a result of the SCR NOx control systems, the quantity of aqueous ammonia stored and used at the facility is greater than the Threshold Quantity, thus a Risk Management Plan (RMP) is required. The aqueous ammonia system was identified as the only process at the facility that triggers RMP requirements. As explained in the following sections, even the highly unlikely worst-case release from the aqueous ammonia system will not result in a public receptor within the distance to toxic endpoint.

1. Accidental Release Prevention and Emergency Response Policies

Accidental release prevention and emergency response policies are supported at the highest level within the Company. The facility is operated to protect the health and safety of our employees and neighbors, as well as to protect the environment. To communicate this philosophy, APS has an ongoing environmental, health, and safety training program for employees. In addition, a release such as that used for the worst case scenario is highly unlikely due to this ongoing training, and preventive maintenance inspections of the ammonia system.

2. Description of Facility and Regulated Substance Handled

The West Phoenix Power Plant is located in the western portion of the greater Phoenix metropolitan area. As mentioned, an SCR system is being installed to control NOx from a new unit and one existing unit. The SCR system for CC5 uses a 29.4% solution of ammonia in water, ammonium hydroxide. The ammonia storage and handling system for CC5 consists of a single 30,000 gallon storage tank, pumps, and piping to the vaporizer, which produces a uniform distribution of aqueous ammonia injected into the flue gas upstream of the SCR catalyst. The storage tank has a maximum design pressure of 25 psia and is completely within a walled containment basin designed to hold all of the tank contents. The tank has an administrative fill limit of 28,500 gallons.

Combined cycle (CC3) has been retrofited with a system using the same 29.4% solution of ammonia in water, ammonium hydroxide. The ammonia storage and handling system for CC3 consists of a single 30,000 gallon storage tank, pumps, and piping to the vaporizer. The storage tank also has a maximum design pressure of 25 psia and is completely within a walled containment basin designed to hold all of the tank contents. The tank also has an administrative fill limit of 28,500 gallons.

3. Worst-case Release Scenario

The worst-case scenario is a release of the entire contents of the storage tank for CC3 or CC5. The worst-case analysis was conducted separately for CC3 and CC5 in order to determine which is worst-case because they have separate storage and handling systems at two different locations. Both tanks are surrounded by walled containment basins that limit the exposed surface area and reduce the release rate for the 29.4 wt.% aqueous ammonia. Using EPA's Guidance for Offsite Consequence Analysis, dated April 1999, the dike areas for both tanks are less than the area of a pool that could form and the containment areas are sufficient to hold the entire volume. Under worst-case meteorology as per the guidance (1.5 m/s and F stability) and adjusting the release rate for release temperature, the resulting distance to toxic endpoint from Reference Table 10 for both tanks is 0.1 miles. For CC3, this distance is contained within the property boundary. The nearest public receptor is at least 800 feet away to the south, well beyond the distance to the toxic endpoint. For CC5, the distance extends just beyond the property boundary to the north and there is not a public receptor within this distance.

The worst-case release from either storage tank is predicted to remain on-site or not reach a public receptor. The facility has not had a release of a regulated substance in the past five years, thus it qualifies for Program 1 and an alternate release scenario is not required.

4. Accidental Release Prevention Program

The aqueous ammonia system was designed to reduce potential offsite impacts by including a concrete dike to provide 100% containment around the storage tank. Operators will receive ongoing training in accident prevention and chemical safety, will conduct visual inspections of the ammonia system routinely, as well as perform maintenance recommended by the equipment manufacturers to reduce the risk of accidents.

5. Five-Year Accident History

There have been no accidental releases of a regulated substance at the West Phoenix Power Plant in the past five years.

6. Emergency Response Program

APS is required to meet the requirements for Program 1, which includes coordination with the local emergency responders. APS has coordinated emergency response with the Maricopa County Emergency Planning Commission.

7. Planned Changes to Improve Safety

APS has an ongoing program of training, maintenance, and inspections in order to minimize the possibility of accidents. Following start-up of the ammonia system the facility will evaluate procedures and implement recommendations as appropriate from ongoing review of operator training and inspection programs.